

EXHIBIT 31



(12) Utility Model Patent

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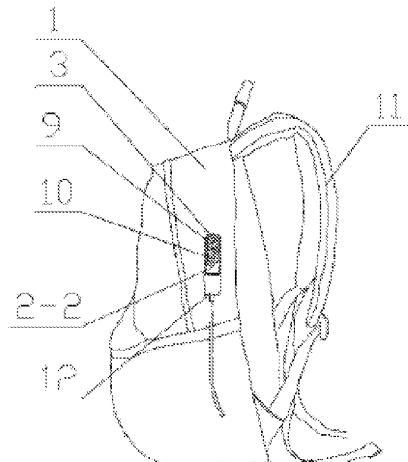
Claims 1 pages Specification 4 pages
Drawings 10 pages

(54) Title of Utility Model

Case or Bag for Easy Charging

(57) Abstract

This utility model relates to a case or bag for easy charging. The case or bag body is equipped with an internal storage space for placing a power storage device. The outer surface of the case or bag body is provided with a power cable output port. The case or bag further includes a USB extension cable installed on the case or bag body. The male end of the USB extension cable is located inside the case or bag body for connection with the power storage device placed within the storage space. The female end is either positioned inside the power cable output port or exposed outside the power cable output port. The female end is covered with a waterproof outer casing for protection. It allows users to conveniently charge their devices anytime and anywhere while walking, without needing to open the case or bag or remove the power source used for charging. In addition, the charging interface has a waterproof function, ensuring reliable performance.



1. A case or bag for easy charging, comprising a case or bag body (1), characterized in that the case or bag body (1) has an internal storage space for placing a power storage device, and the outer surface of the case or bag body (1) is provided with a power cable output port; the case or bag further includes a USB extension cable (2) installed on the case or bag body (1), wherein the male end (2-1) of the USB extension cable (2) is located inside the case or bag body (1) for connection with the power storage device in the storage space, and the female end (2-2) is positioned either inside the power cable output port or exposed outside the power cable output port and is covered with a waterproof outer casing (3) on its outer surface.
2. The case or bag for easy charging according to Claim 1, characterized in that the outer casing (3) is further provided with a dustproof cover (4).
3. The case or bag for easy charging according to Claim 2, characterized in that the power cable output port is set on the surface of the case or bag, the female end (2-2) is exposed outside the power cable output port, and the dustproof cover (4) is attached to the side of the female end (2-2) and is flip-connected to its side.
4. The case or bag for easy charging according to Claim 2, characterized in that the power cable output port is set within a recess (5) on any side of the case or bag, the female end (2-2) is positioned inside the power cable output port, and the dustproof cover (4) is installed at the opening of the recess (5) and is flip-connected to the recess (5).
5. The case or bag for easy charging according to Claim 1, characterized in that the power cable output port is set on any side of the nameplate (6).
6. The case or bag for easy charging according to Claim 1, characterized in that the power cable output port is set on any side of the buckle (7).
7. The case or bag for easy charging according to Claim 1, characterized in that the case or bag body (1) is provided with a wiring channel (8) that extends from the power storage device placement space to the power cable output port for routing the USB extension cable (2).
8. The case or bag for easy charging according to any one of Claims 1-7, characterized in that the female end (2-2) of the USB extension cable (2) is further equipped with a Bluetooth anti-loss device (9) for connecting with the Bluetooth device on the product to be charged.
9. The case or bag for easy charging according to any one of Claims 1-7, characterized in that the female end (2-2) of the USB extension cable (2) is further equipped with a GPS device (10) for positioning.
10. The case or bag for easy charging according to any one of Claims 1-7, characterized in that the power cable output port is set on the shoulder strap (11) of the bag.

Case or Bag for Easy Charging

Technical Field

[0001] This utility model relates to a case or bag, particularly to a case or bag for easy charging.

Background Art

[0002] Cases or bags such as backpacks (e.g., student backpacks, outdoor backpacks), travel trolley cases, briefcases, handbags, and shoulder bags have become essential items in people's daily lives. With the continuous development of society, various portable digital devices have become increasingly prevalent in our lives, and our dependence on them has grown significantly. These devices include tablet computers, mobile phones, digital cameras, and camcorders, among others. While cases or bags primarily serve the purpose of storage, people now demand additional functionalities, such as the ability to charge portable digital devices. For travelers, outdoor workers, and individuals on long business trips, recharging these digital devices when their batteries are depleted can be highly inconvenient, creating significant disruptions in work and daily life. Existing cases or bags either lack a charging function or require users to place a power bank inside and open the case or bag to charge their devices. This method is cumbersome and inconvenient to use.

Content of Utility Model

[0003] The purpose of this utility model is to overcome the aforementioned drawbacks and provide a case or bag for easy charging. It allows users to conveniently charge their devices anytime and anywhere while walking, without the need to open the case or bag or remove the power source for charging. In addition, the charging interface is waterproof, ensuring reliable performance.

[0004] This utility model is implemented as follows: A case or bag for easy charging, comprising a case or bag body, wherein the case or bag body is internally provided with a storage space for a power storage device. The outer surface of the case or bag body is equipped with a power cable output port. The case or bag further includes a USB extension cable installed on the case or bag body. The male end of the USB extension cable is located inside the case or bag body for connection with the power storage device in the storage space, while the female end is positioned either inside the power cable output port or exposed outside the power cable output port. The female end is covered with a waterproof outer casing on its surface.

[0005] While walking, when the battery of the device to be charged is depleted, the user only needs to plug the charging connector of the device into the female end of the USB extension cable to start charging. There is no need to open the case or bag or remove the power source used for charging.

[0006] Preferably, the outer casing is further equipped with a dustproof cover for protection.

[0007] Preferably, the power cable output port is set on the surface of the case or bag, and the female end is exposed outside the power cable output port. The dustproof cover is attached to the side of the female end and is flip-connected to its side.

[0008] Preferably, the power cable output port is set within a recess on any side of the case or bag, and the dustproof cover is installed at the opening of the recess and is flip-connected to the recess.

[0009] Preferably, the power cable output port can be set on any side of the nameplate.

[0010] Preferably, the power cable output port can be set on any side of the buckle.

[0011] To facilitate the setup of the USB extension cable, the case or bag body is provided with a wiring channel that extends from the power storage device placement space to the power cable output port, allowing the USB extension cable to be routed through.

[0012] To prevent the case or bag from being lost, the female end of the USB extension cable is further equipped with a Bluetooth anti-loss device, which connects with the Bluetooth device on the product to be charged.

[0013] To enable real-time positioning of the case or bag for easy charging provided by this utility model, the female end of the USB extension cable is also equipped with a GPS device for tracking.

[0014] To facilitate charging while walking, the power cable output port is set on the shoulder strap of the bag.

[0015] Compared with the existing technology, this utility model has the following advantages:

[0016] (1) The case or bag for easy charging provided by this utility model allows users to conveniently charge their devices anytime and anywhere while walking,

without needing to open the case or bag or remove the power source for charging. In addition, the charging interface is waterproof and dustproof, ensuring reliable performance.

[0017] (2) The case or bag for easy charging in this utility model is equipped with a Bluetooth anti-loss device.

When the user moves a certain distance away from the case or bag, the Bluetooth anti-loss device will emit an alarm signal to alert the user, effectively preventing loss of the case or bag.

[0018] (3) The case or bag for easy charging in this utility model is also equipped with a GPS device for real-time positioning of the case or bag.

Description of the Drawings

[0019] The following describes this utility model in further detail with reference to the accompanying drawings and implementation examples:

[0020] Figure 1 is a structural schematic diagram of Embodiment 1 of this utility model.

[0021] Figure 2 is a structural schematic diagram of the USB extension cable in Embodiment 2 of this utility model.

[0022] Figure 3 is a structural schematic diagram of Embodiment 3 of this utility model.

[0023] Figure 4 is a structural schematic diagram of Embodiment 4 of this utility model.

[0024] Figure 5 is a structural schematic diagram of Embodiment 5 of this utility model.

[0025] Figure 6 is a structural schematic diagram of Embodiment 6 of this utility model.

[0026] Figure 7 is a structural schematic diagram of Embodiment 7 of this utility model.

[0027] Figure 8 is a structural schematic diagram of Embodiment 8 of this utility model.

[0028] Figure 9 is a structural schematic diagram of Embodiment 9 of this utility model.

[0029] Figure 10 is a structural schematic diagram of Embodiment 10 of this utility model.

[0030] Explanation of Symbols in the Figures: 1 represents the case or bag body; 2 represents the USB extension cable; 2-1 represents the male end; 2-2 represents the female end; 3 represents the outer casing; 4 represents the dustproof cover; 5 represents the recess; 6 represents the nameplate; 7 represents the buckle; 8 represents the wiring channel; 9 represents the Bluetooth anti-loss device; 10 represents the GPS device; 11 represents the shoulder strap; 12 represents the external USB connection cable.

Embodiments

[0031] The following provides a detailed description of this utility model with reference to the accompanying drawings and specific embodiments:

[0032] As shown in Figure 1, Embodiment 1 of this utility model is a backpack, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set on the side of the bag body 1. The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is exposed outside the power cable output port. The female end 2-2 is covered with a waterproof outer casing 3. Additionally, the female end 2-2 is equipped with a Bluetooth anti-loss device 9 for connecting with the Bluetooth device on the product to be charged and a GPS device 10 for positioning.

[0033] While walking, when the battery of the device to be charged is depleted, the user only needs to plug the external USB connection cable 12 of the device into the female end 2-2 of the USB extension cable 2 to start charging. There is no need to open the case or bag or remove the power source used for charging.

[0034] As shown in Figure 2, Embodiment 2 of this utility model differs from Embodiment 1 in that the outer casing 3 is further equipped with a dustproof cover 4. The dustproof cover 4 is attached to the side of the female end 2-2 and is flip-connected to its side.

[0035] As shown in Figure 3, Embodiment 3 of this utility model is a trolley case, which includes a case body 1. The case body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set on the side of the case body 1. The case also includes a USB extension cable 2 installed on the case body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is exposed outside the power cable output port. The female end 2-2 is covered with a waterproof outer casing 3, and an external USB connection cable 12 is connected to the female end 2-2.

[0036] As shown in Figure 4, Embodiment 4 of this utility model is a men's handbag, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set on the surface of the bag body 1 (not shown in the figure). The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is exposed outside the power cable output port. The female end 2-2 is covered with a waterproof outer casing 3.

[0037] As shown in Figure 5, Embodiment 5 of this utility model is a women's handbag, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set at the bottom side of the bag body 1. The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is positioned within the power cable output port. The dustproof cover 4 is installed at the opening of the recess 5 and is flip-connected to the recess 5.

[0038] As shown in Figure 6, Embodiment 6 of this utility model is a briefcase, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set at the bottom side of the bag body 1. The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space. The power cable output port is located below the nameplate 6, and the female end 2-2 is positioned within the power cable output port.

[0039] As shown in Figure 7, Embodiment 7 of this utility model is also a briefcase, which differs from Embodiment 6 in that the power cable output port is located below the buckle 7, and the female end 2-2 is positioned within the power cable output port.

[0040] As shown in Figure 8, Embodiment 8 of this utility model is a shoulder bag, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device (not shown in the figure). A power cable output port is set on the side of the bag body 1. The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is exposed outside the power cable output port. The female end 2-2 is covered with a waterproof outer casing 3.

[0041] As shown in Figure 9, Embodiment 9 of this utility model is an outdoor backpack, which includes a bag body 1. The bag body 1 has an internal storage space for placing a power storage device. The power cable output port is set on the shoulder strap 11 of the bag body 1. The bag also includes a USB extension cable 2 installed on the bag body 1. The male end 2-1 of the USB extension cable 2 is connected to the power storage device inside the storage space, while the female end 2-2 is exposed outside the power cable output port. The female end 2-2 is covered with a waterproof outer casing 3. The bag body 1 is also provided with a wiring channel 8, which extends from the power storage device placement space to the power cable output port, allowing the USB extension cable 2 to be routed through.

[0042] As shown in Figure 10, Embodiment 10 of this utility model is also an outdoor backpack, which differs from Embodiment 9 in that the power cable output port is set on the side of the bag body 1 instead of the shoulder strap.

[0043] The above specific embodiments provide a detailed explanation of the technical solution of this utility model. However, this utility model is not limited to the aforementioned embodiments. Any modifications or substitutions made based on the principles of this utility model should fall within the scope of protection of this utility model.

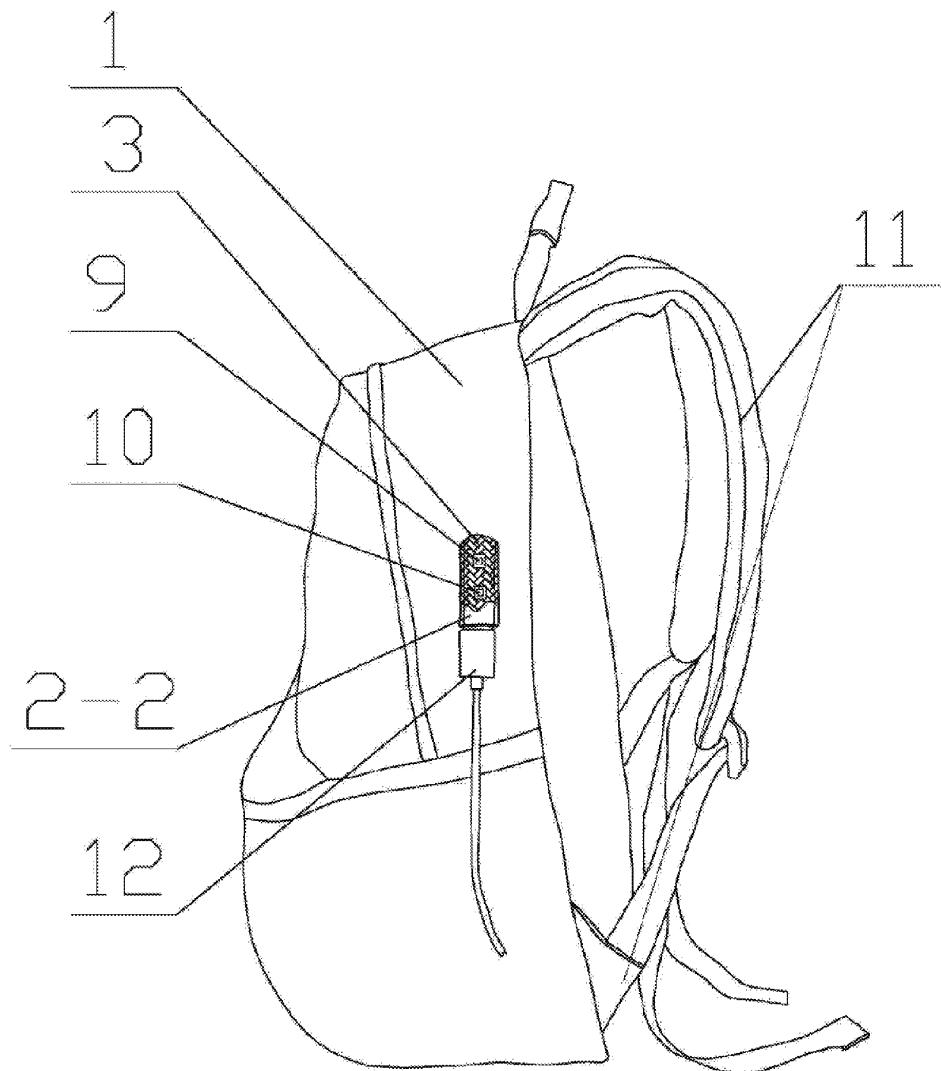


Figure 1

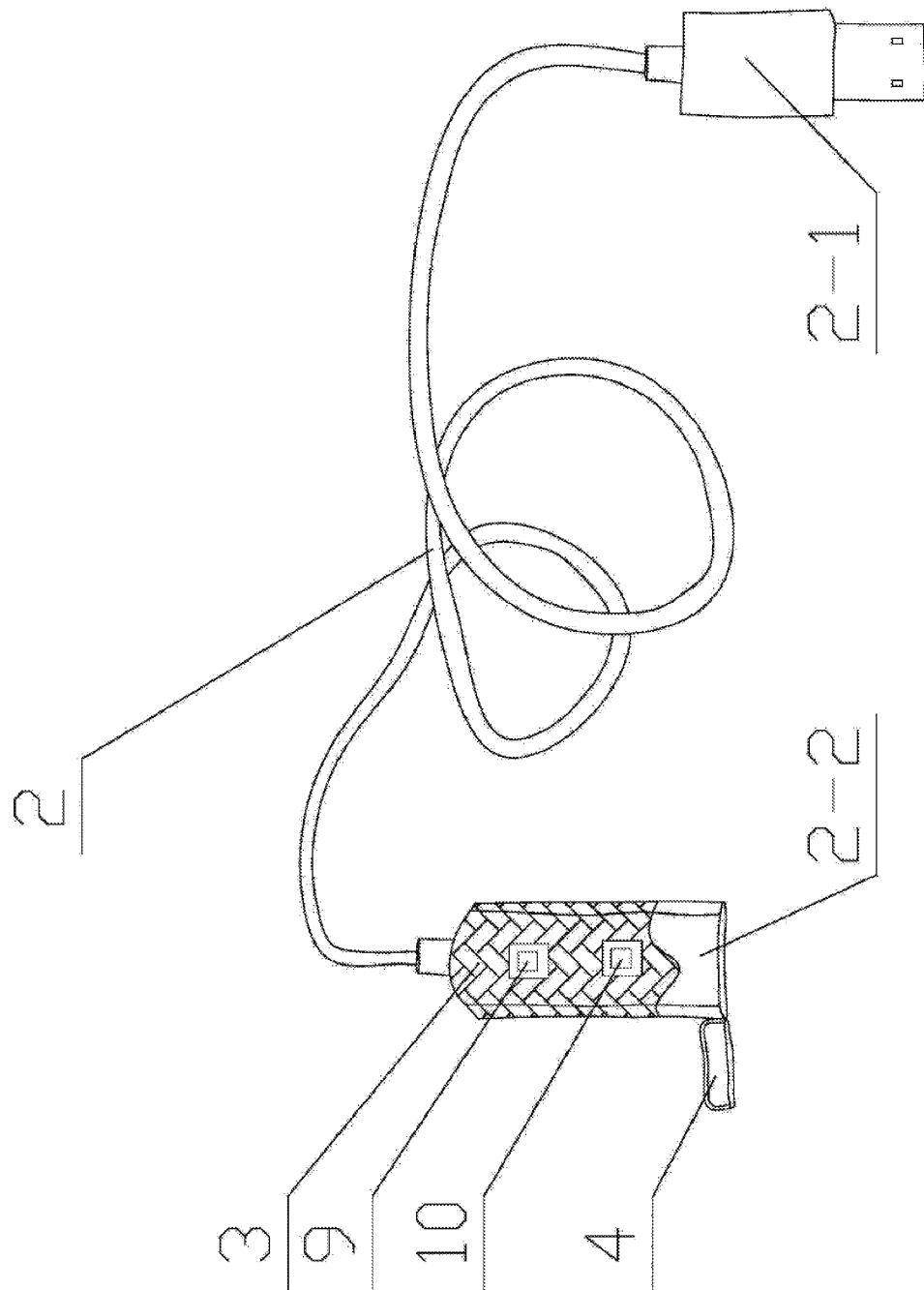


Figure 2

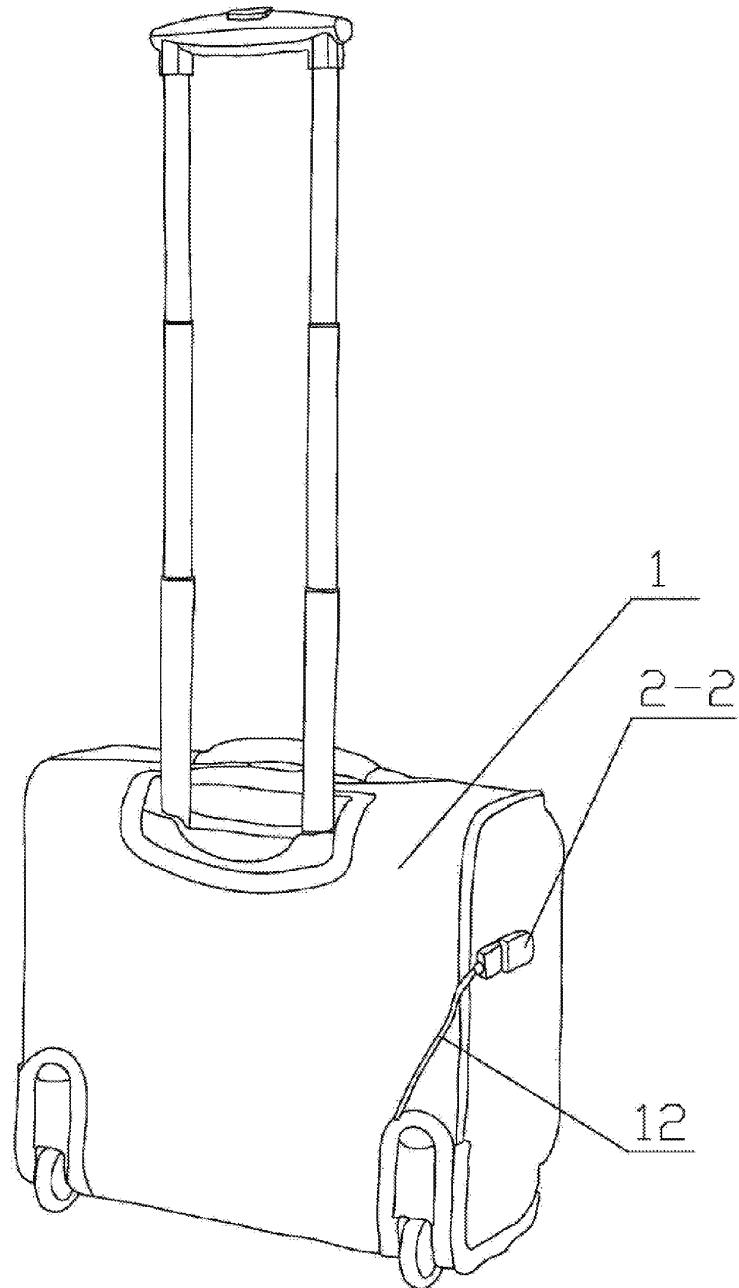


Figure 3

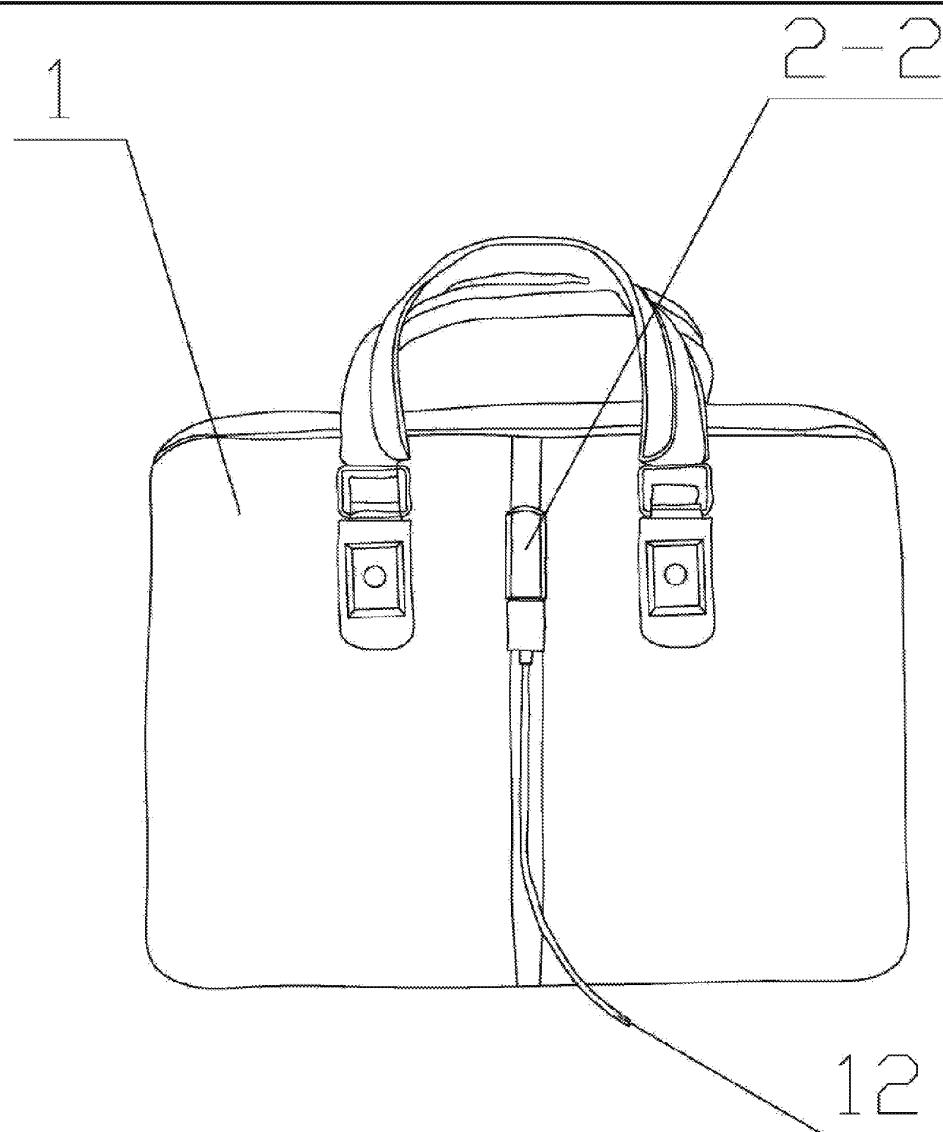


Figure 4

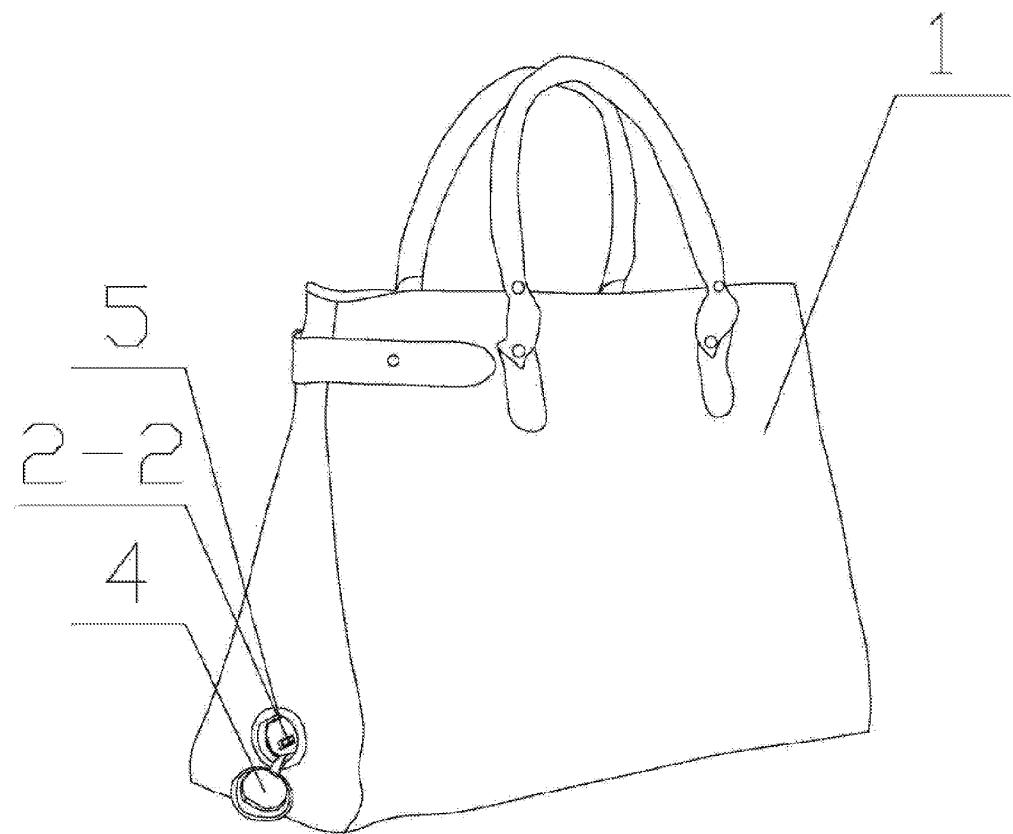


Figure 5

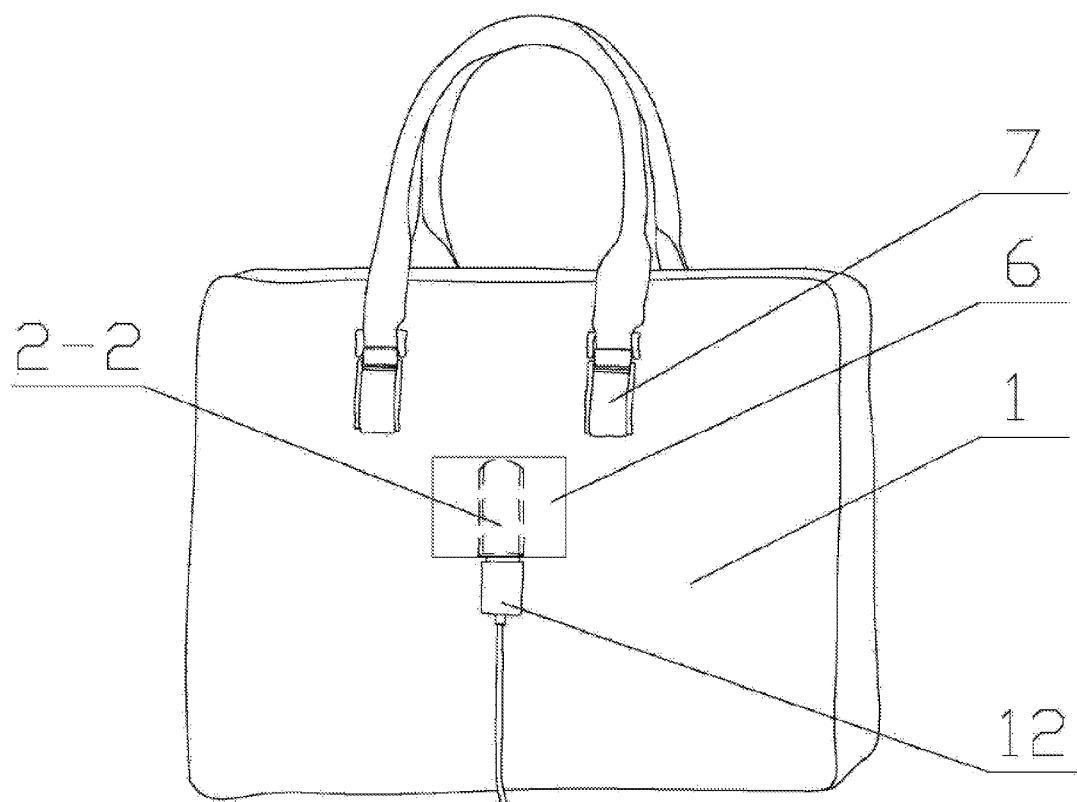


Figure 6

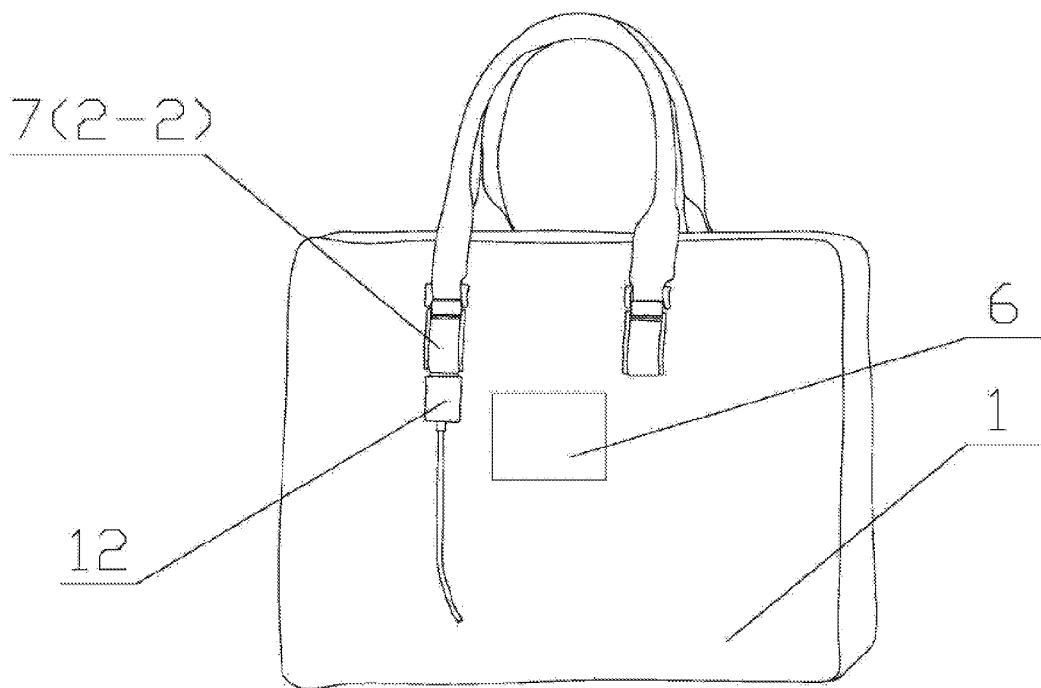


Figure 7

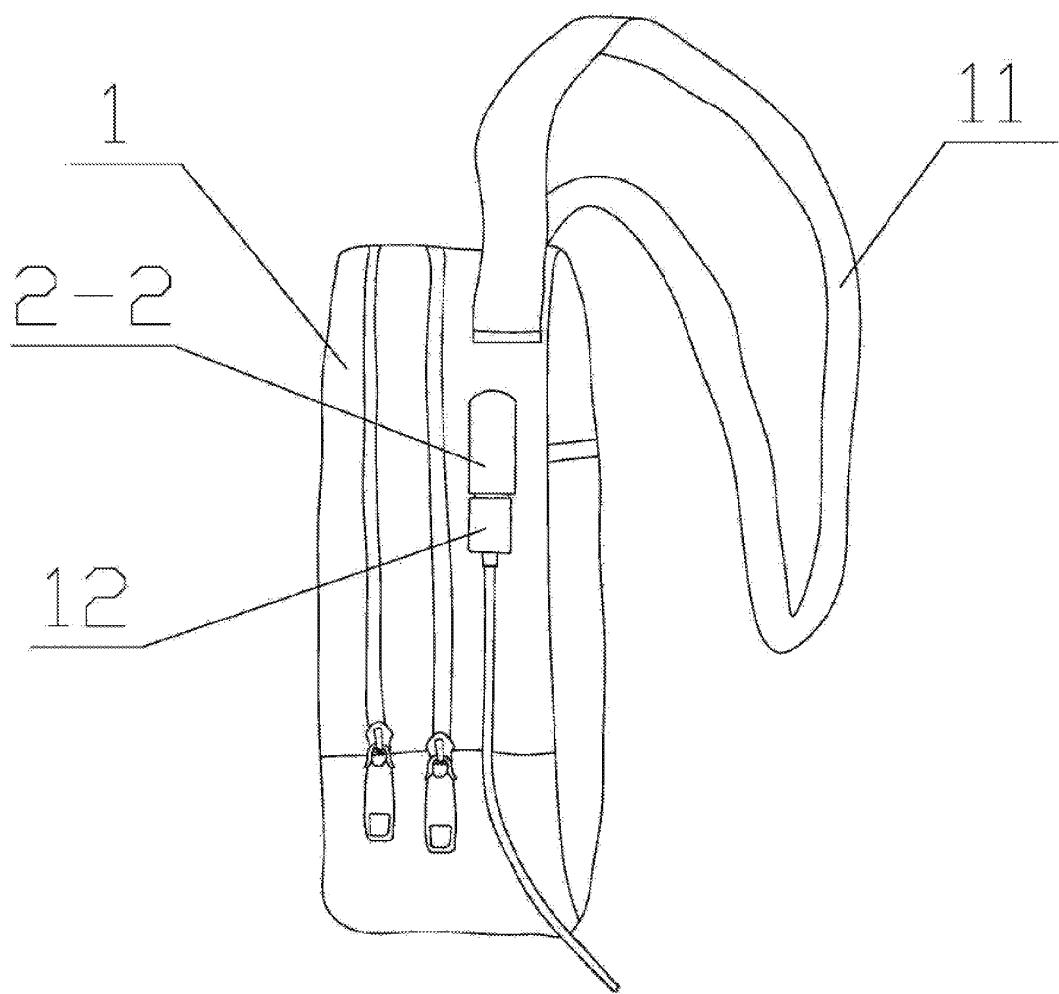


Figure 8

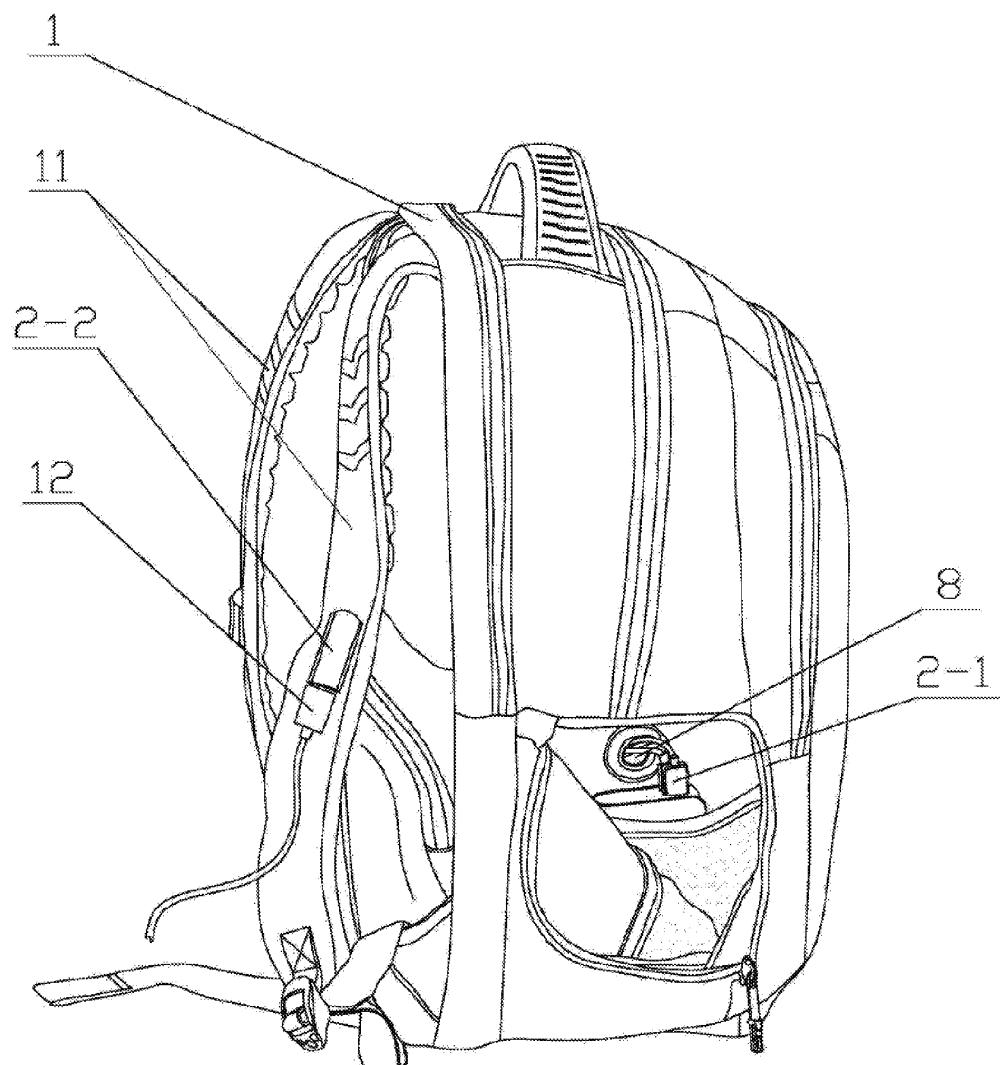


Figure 9

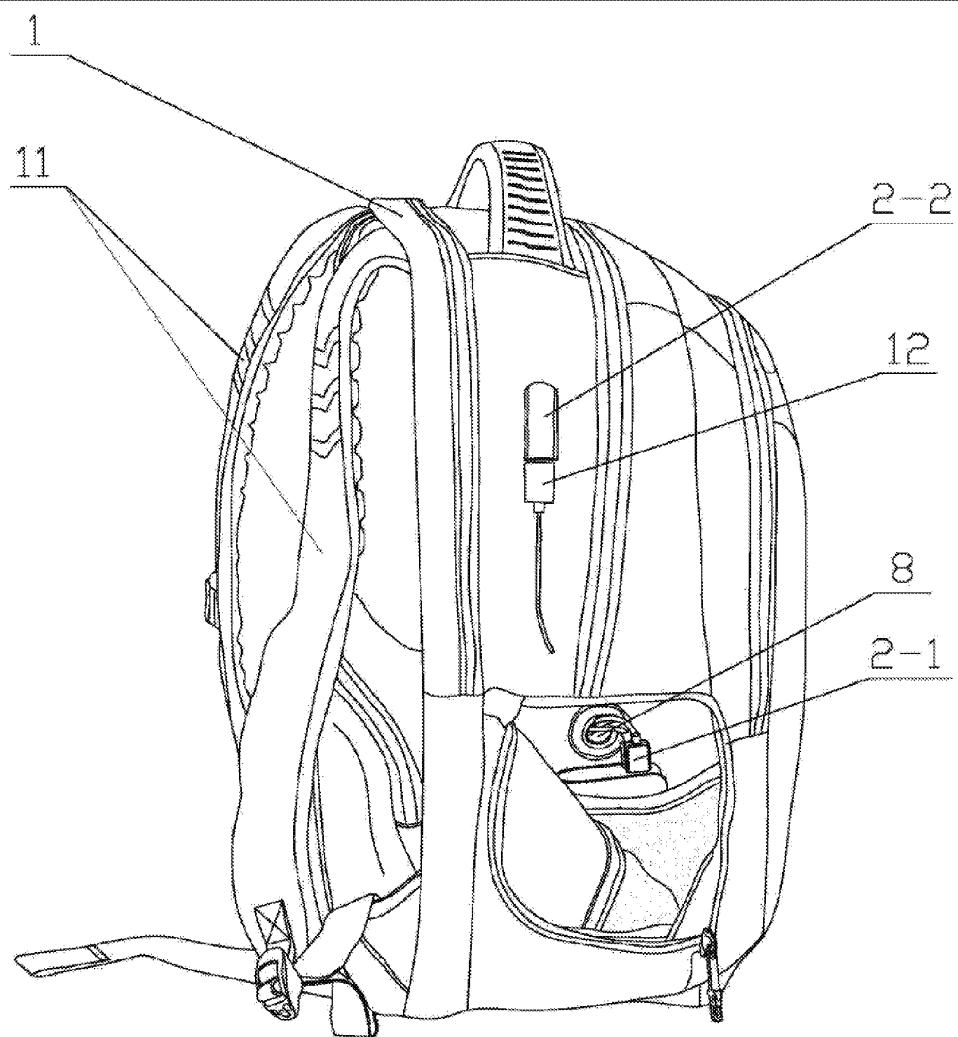


Figure 10